

WHAT IS CLAIMED IS:

1. A method for determining the concentration/amount of analyte molecules in a sample, comprising the steps of:

a) adding to the sample a known concentration/amount of competitor or analogue molecules of the analyte, said competitor/analogue molecules being distinct from said analyte molecules,

b) reacting/contacting the sample of step a) with capture molecules for the analyte and competitor molecules,

c) determining a measure for the ratio R of analyte and competitor molecules that are bound to the capture molecules,

d) determining the concentration/amount of the analyte molecules from the ratio R of step c) and the known concentration/amount of competitor molecules in the sample of step a).

2. The method of claim 1, wherein in step c) the amount of competitor molecules bound to the capture molecules is determined using a detection reagent.

3. The method of Claim 2, wherein said detection reagent is a labelled or enzyme-conjugated ligand.

4. The method of claim 1, wherein in step c) the amount of analyte molecules bound to the capture molecules is determined using a detection reagent.

5. The method of Claim 4, wherein said detection reagent is a labelled or enzyme-conjugated ligand.

6. The method of claim 4, wherein in step b) analyte and competitor molecules not reacted with/bound to the capture molecules are removed.

7. The method of claim 6, wherein said analyte and competitor molecules not reacted with/bound to the capture molecules are removed by washing steps.

8. The method of claim 4, wherein the method is performed on an array of immobilized capture molecules.

9. The method of claim 1, wherein in step c) the total amount of analyte and competitor molecules bound to the capture molecules is determined using a detection reagent.

10. The method of Claim 9, wherein said detection reagent is a labelled or enzyme-conjugated ligand.

11. The method of claim 1, wherein in step c) the amount of competitor molecules bound to the capture molecules is determined distinct but parallel the to determination of analyte molecules bound to the capture molecules.

12. The method of claim 1, wherein in step b) analyte and competitor molecules not reacted with/bound to the capture molecules are removed.

13. The method of claim 12, wherein said analyte and competitor molecules not reacted with/bound to the capture molecules are removed by washing steps.

14. The method of claim 1, wherein the method is performed on an array of immobilized capture molecules.

15. The method of claim 1, wherein the method is performed in a suspension capture of beads having attached there to molecules.

16. The method of claim 1, wherein the competitor molecules are labelled.

17. The method of claim 16, wherein the competitor molecules are labelled with a fluorescent dye.

18. The method of claim 1, wherein the analyte molecules are labelled.

19. The method of claim 18, wherein the analyte molecules are labelled with a fluorescent dye

20. A kit for performing the method of claim 1, comprising capture molecules.

21. The kit of Claim 20, further comprising detection reagents for analyte and/or for competitor molecules.

22. The kit of claim 20, further comprising competitor molecules.

23. The kit of claim 20, wherein the capture molecules are arranged in an array.

24. The kit of Claim 23, wherein said array is a microarray.

25. The kit of claim 20, wherein the capture molecules are attached to beads.

26. A method for determining the concentration/amount of analyte molecules in a sample, comprising the steps of:

a) adding to the sample a known concentration/amount of competitor/analogue molecules of the analyte, said competitor/analogue molecules being distinct from said analyte molecules,

b) reacting/contacting the sample of a) with capture step molecules for the analyte and competitor/analogue molecules,

c) determining the amount of competitor/analogue molecules bound to the capture molecules using a detection reagent or labeled competitor/analogue molecules, and determining the total amount of analyte and competitor/analogue molecules bound to the capture molecules using a detection reagent, and calculating therefrom a measure for the ratio R of analyte and competitor/analogue molecules that are bound to the capture molecules,

d) determining the concentration/amount of the analyte molecules from the ratio R of step c) and the known concentration/amount of competitor/analogue molecules in the sample of step a).

27. The method of Claim 26, wherein said detection reagent is a labeled or enzyme-conjugated ligand.

28. The method of claim 26, wherein in step c) the amount of competitor/analogue molecules bound to the capture molecules is determined distinct but parallel to the determination of the total amount of competitor/analogue and analyte molecules bound to the capture molecules.

29. The method of claim 26, wherein in step b) analyte and competitor/analogue molecules not reacted with/bound to the capture molecules are removed.

30. The method of claim 29, wherein in step b) analyte and competitor/analogue molecules not reacted with/bound to the capture molecules are removed by washing steps

31. The method of claim 28, wherein in step b) analyte and competitor/analogue molecules not reacted with/bound to the capture molecules are removed.

32. The method of claim 31, wherein in step b) analyte and competitor/analogue molecules not reacted with/bound to the capture molecules are removed by washing steps.

33. The method of claim 26, wherein the method is performed on an array of immobilized capture molecules.

34. The method of claim 26, wherein the method is performed in a suspension of beads having attached thereto capture molecules.

35. The method of claim 26, wherein the competitor/analogue molecules are labeled with a fluorescent dye.

36. A kit for performing the method of claim 26, comprising capture molecules, competitor/analogue molecules, and detection reagents for analyte and for competitor/analogue molecules.

37. The kit of claim 36, wherein the capture molecules are arranged in an array.

38. The kit of Claim 37, wherein said array is a microarray.

39. The kit of claim 36, wherein the capture molecules are attached to beads.

40. The kit of claim 39, wherein said beads have attached thereto different species of capture molecules for determining different species of analyte molecules.